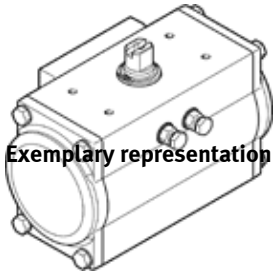
semi-rotary drive
DFPD-40-

Part number: 8042186

rack and pinion design, connection pattern to NAMUR VDI/VDE 3845
for mounting solenoid valves, position sensors and positioners,
standard connection to process valve fitting ISO 5211.



Exemplary representation

Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Size of actuator	40
Flange hole pattern	F04 F05 F0507
Swivel angle	90 ... 180 deg
End-position adjustment range at 0°	-5 ... 5 deg
End-position adjusting range at nominal swivel angle	-5 ... 5 deg
Shaft connection depth	12 ... 16 mm
Fitting connection conforms to standard	ISO 5211
Assembly position	Any
Mode of operation	double-acting single-acting
Design structure	Rack and pinion
Closing direction	right-closing Closes to the left
Valve connection conforms to standard	VDI/VDE 3845 (NAMUR)
Connection for positioner and position sensor conforms to standard	VDI/VDE 3845 size AA 1
Safety Integrity Level (SIL)	Product can be used in SRP/CS up to SIL 2 low demand Up to SIL 3 in redundant architecture up to SIL 1 high demand mode
Certified for safety function to ISO 13849 and IEC 61508 (SIL)	Product can be used in SRP/CS up to SIL 2 low demand up to SIL 1 high demand mode Up to SIL 3 in redundant architecture
Operating pressure MPa	0.2 ... 0.8 MPa
Operating pressure	2 ... 8 bar 29 ... 116 psi
Nominal operating pressure	2 ... 6 bar
Maritime classification	see certificate
CE mark (see declaration of conformity)	to EU directive explosion protection (ATEX)
UKCA marking (see declaration of conformity)	To UK EX instructions
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
Certificate issuing department	DNV TAP00001CE German Technical Control Board (TÜV) Rheinland 968/V 1106.01/2023
ATEX category Gas	II 2G
ATEX category Dust	II 2D
Explosion ignition protection type Gas	Ex h IIC T3 Gb X Ex h IIC T4 Gb X Ex h IIC T6 Gb X
Explosion ignition protection type Dust	Ex h IIIC T105°C Db X Ex h IIIC T175°C Db X

Feature	Value
	Ex h IIIC T85°C Db X
Explosion-proof ambient temperature	-20°C <= Ta <= +80°C -50°C <= Ta <= +60°C 0°C <= Ta <= +150°C
Operating medium	Compressed air in accordance with ISO8573-1:2010 [7:4:4]
Note on operating and pilot medium	Pressure dew point 10°C below ambient temperature/temperature of medium Lubricated operation possible (subsequently required for further operation)
Corrosion resistance classification CRC	1 - Low corrosion stress
PWIS conformity	VDMA24364-B1/B2-L VDMA24364 zone III
Storage temperature	-20 ... 60 °C
Ambient temperature	-50 ... 150 °C
Torque at rated operating pressure and 0° rotation angle	9.3 ... 38.3 Nm
Torque at nominal operating pressure with 90° swivel angle	4.8 ... 38.3 Nm
Note about the torque	The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.
Spring return torque with 0° swivel angle	4.6 ... 13.8 Nm
Spring return torque at 90°	9.1 ... 27.2 Nm
Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°	1.5 ... 5.6 l
Product weight	1,882 ... 2,608 g
Shaft connection	T11 T14
Pneumatic connection	G1/8 1/8 NPT
Materials note	Conforms to RoHS
Material of connecting plate	Anodised wrought aluminium alloy
Material cover	Die-cast aluminium, coated
Material seals	FPM FVMQ NBR
Material spring	Spring steel
Material housing	Anodised wrought aluminium alloy
Material piston	Aluminium die cast
Material bearing	POM PPS-reinforced
Material cam	Steel High alloy steel, non-corrosive
Material screws	High alloy steel, non-corrosive
Material shaft	Steel, nickel-plated High alloy steel, non-corrosive